APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,516	08/26/2003	Hideaki Kojima	009270-0305497	2695

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EXAMINER
PAIK, STEVE S

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/647,516	KOJIMA, HIDEAKI
	Examiner	Art Unit	
	Steven S. Paik	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _06 May 2005_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _26 August 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _8/26/03_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   Receipt is acknowledged of the Amendment filed May 6, 2005.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isobe et al.

(US 6,019,285) in view of Harrell (US 6,609,655 B1)

Re claims 1 and 4, Isobe et al. disclose a card processing system (Fig. 1) using an IC card

(IC card 20) capable of exchanging information through an electrical contact (interface part 21)

with an on-board unit (vehicle-mounted unit 10) installed in a vehicle using a toll road and a

wireless communication (Abstract) with an antenna unit installed at a roadside (road side unit 60)

of the toll road comprising, a first processor (control part 19) configured to execute the process

through the wireless communication with the on-board unit (10) by inserting the IC card (20) so

as to electrical contact (via interface part 18) the on-board unit. Isobe et al. further disclose

comparison/collation means for comparing and collating the on-board unit peculiar information

(col. 4, ll. 18-42) that are stored in the on-board unit and the IC card (col. 4, ll. 35-63), and

means for storing the entrance information stored in the IC card in the on-board unit

when respective if vehicle unit peculiar information are matched by the comparison/collation

means (col. 5, ll. 1-20).

The communication between the IC card and the roadside unit using a second processor when an error is generated in the process by the first processor is not specifically disclosed in the Isobe et al. reference.

Harrell discloses a multi-purpose smart card system (10 in Fig. 1) using an IC card (smart card 40) that can function in contact (via contact interface 41) or contactless (via contactless interface 42) communication. The system further comprises a plurality of processors each managing a unique function. For example, processor 20 communicates through the contact interface for processing travel and entertainment related products and services and processor 60 communicates through the contactless interface 42 for processing fare/toll/fee payment services. The capability undoubtedly increases its acceptability in various card-reading systems. In addition, there is a tremendous amount of savings in cost and space since the card does not require two separate readers, contact type and contactless type.

In view of Harrell, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to further employ a multi-purpose smart card system in addition to the card processing system of Isobe et al. due to the fact that data can be exchanged in contact or contactless communication protocol on a single IC card for the purposes of increasing the usability and acceptability of the IC card and saving cost and space since the card does not require two separate readers, contact type and contactless type.

Re claim 2, Isobe et al. in view of Harrell disclose the card processing system as recited in rejected claim 1 stated above, wherein the first processor and the second processor are executed at an entrance of the toll road, respectively (col. 2, ll. 59-67).

Re claim 3, Isobe et al. in view of Harrell disclose the card processing system as recited

in rejected claim 1 stated above, wherein the first processor and the second processor are

executed at an exit of the toll road, respectively (col. 6, ll. 5-43).

Re claim 5, Isobe et al. in view of Harrell disclose the card processing system as recited

in rejected claim 2 stated above, further comprising:

a comparison/collation means for comparing and collating the on-board unit peculiar

information and entrance information that should have been stored in the on-board unit and the

IC card (20), respectively when the IC card storing the entrance information obtained by the on-

board unit (10) in the entrance processing at the entrance by the first processor (control part 19)

is pulled out of the on-board unit (10) and inserted into the on-board unit again; and

means for storing a possibility of illegality in at least either one of the IC card (20) and

the on-board unit (10) when at least either one of the on-board unit peculiar information and the

entrance information is detected as being mismatch (col. 5, ll. 1-20 discloses the process of

detecting vehicle type information and comparing the vehicle type information from the vehicle

type detection apparatus with other vehicle type information included in the vehicle information

received from the passing vehicle. A vehicle-mounted unit stores vehicle information,

information of the registered vehicle-mounted unit, information regarding the entrance and the

exit, and information regarding an IC card. The comparing process verifies the aforesaid

information stored previously.).

Re claim 6, Isobe et al. in view of Harrell disclose the card processing system as recited

in rejected claim 3 stated above, wherein the second processor includes judging means for

judging the exit process is possible by collating the information obtained from the IC card

through the wireless communication with the IC card and the information obtained from the on-board unit before the exit process that is executed by the first processor is abnormally finished, and the exit processor to execute the exit process by determining a vehicle class from the information obtained from the IC card, further comprising:

means for storing information (Info. Rec. Part 22) of the result of the exit process by the exit processor (Fair/Toll/Fee payment processor 60) and the abnormally finished history information (Information of past usage record) in the exit process by the first processor (The vehicle-mounted unit saves the entrance, route, and exit information in the recording unit and a separate recording medium as a backup for the purpose of operating the toll system in a situation where the vehicle-mounted unit is malfunctioning.).

Re claim 7, Isobe et al. in view of Harrell disclose the card processing system as recited in rejected claim 2 stated above, further comprising:

notifying means for notifying that the IC card is not inserted in the on-board unit to a user of the IC card when peculiar information of the on-board unit was obtained by the first processor that is executed at the entrance of the toll road but the individual information of the IC card was not obtained (col. 5, ll. 24-46);

comparison/collation means for comparing and collating the peculiar information of the on-board unit. stored in the on-board unit and the IC card when the IC card is inserted into the on-board unit (col. 5, ll. 1-20); and

warning means for warning the possibility of illegality for use of IC cards or on-board units (There is a step that executes a process for discharging the IC card if the IC card is not a suitable card. For example, if an automatic discharge mechanism is installed in the vehicle-

mounted unit, the automatic discharge mechanism discharges the IC card automatically;

otherwise, a buzzer generates the buzzer sound and display 14 indicates discharging of the IC

card.).

Re claim 8, Isobe et al. in view of Harrell disclose the card processing system as recited

in rejected claim 3 stated above, further comprising:

notifying means for notifying a user of the IC card that the IC card was not inserted in the

on-board unit when peculiar information of the on-board unit was obtained by the first processor

that is executed at the exit of the toll road but the peculiar information of the IC card could not be

obtained (col. 5, ll. 24-46);

comparison/collation means for comparing and collating the peculiar information of the

on-board unit stored in the on-board unit and the IC card (col. 5, ll. 1-20), respectively when the

IC card is inserted into the on-board unit; and

warning means for warning a possibility of illegality for use of IC cards or on-board units

when the on-board unit peculiar information are detected as being mismatched as a result of the

comparison by the comparison/collation means (col. 5, ll. 1-20).

Re claim 9, Isobe et al. in view of Harrell disclose the card processing system as recited

in rejected claim 2 stated above, wherein the second processor (Fair/Toll/Fee payment processor

60 of Harrell) is executed through the wireless communication with the IC card pulled out of the

on-board unit and further comprising:

detecting means for detecting that the IC card is inserted into the on-board unit (col. 5, ll.

24-46);

means for storing peculiar information of the on-board unit stored in the on-board unit

(Info Rec. Part 13) in the IC card (Info. Rec. Part 22) and individual card information stored in

the IC card in the on-board unit when the detecting means detects that the IC card is inserted in

the on-board unit;

comparison/collation means for comparing and collating the peculiar information of the

on-board unit stored in the IC card and the peculiar information of the on-board unit stored in the

on-board unit when the IC card is inserted in the on-board unit again after the second processor

is executed with the IC card pulled out of the on-board unit (col. 4, ll. 17-63 disclose information

recorded in the vehicle-mounted unit and the IC card.); and

warning means for warning possibility of illegality when the peculiar information of both

the on-board units are detected as being mismatched as a result of the collation by the

comparison/collation means (col. 5, ll. 1-16).

Re claim 10, Isobe et al. in view of Harrell disclose the card processing system as recited

in rejected claim 1 stated above, further comprising:

detecting means (interface part 18) for detecting a contact defect by the communication

through the electrical contact provided in the IC card (interface part 21);

reading means (road side units 30-50) for reading out the information stored in the IC

card through an antenna provided in the IC card by the second processor (Fair/Toll/Fee payment

processor 60 of Harrell) when the contact defect is detected by the detecting means (The IC card

stores entrance, route, and exit information as a backup and communicates with road side unit in

case the function of the vehicle-mounted unit is improper); means for sending the IC card

information read by the reading means to an upper rank host computer for enquiry (col. 5, ll. 17-21); and

means for writing the IC card information in a separate new IC card and reissuing this IC card when the match is answered by the upper rank host computer in response to the enquiry made for the IC card (col. 6, line 44 – col. 7, line 14).

Method claims 11-20 are essentially the same in scope as apparatus claims 1-10 and are rejected similarly.

Response to Arguments

4.   Applicant's arguments and amendments, see pages 1-18, filed May 6, 2005, with respect to the rejection(s)of claim(s) 1-20 under 35 U.S.C. § 103(a) have been fully considered. However, upon further consideration of the amended claims in view of the arguments, a new ground(s) of rejection is made in view of Harrell (US 6,609,655 B1). Harrell discloses a multi-purpose smart card system for providing travel and entertainment related resources and associated methods. The system comprises a smart card that is capable of communicating in a contact and a contactless manner. The system further comprises a plurality of processors for communicating with contact and contactless interfaces of the smart card separately. In view of above discussion, claims 1-20 are rejected under 35 U.S.C. section 103(a).

Conclusion

5.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven S. Paik whose telephone number is 571-272-2404. The

examiner can normally be reached on Mon - Fri (5:30am-2:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven S. Paik
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Art Unit 2876

ssp